Body and Paint Procedures Manual for the Do It Yourselfer

"**Believe in the best**... have a goal for the best, never be satisfied with less than your best, try your best, and in the long run things will turn out for the best."

Henry Ford (1863-1947)
American industrialist

TABLE OF CONTENTS

USING THIS MANUAL

Purpose

Introduction

1. Preparing surfaces for bodywork
   1. A. Applying and working with plastics

2. Paint Gun Techniques
   2. A. What a Paint Gun Does
   2. B. Types of Paint Guns
   2. C. Adjusting Paint Guns
   2. D. Proper Gun Techniques
   2. E. Spray Gun Troubleshooting

3. Primer/Fillers
   3. A. Types of Primers-Fillers
   3. B. Applying Primer-Fillers
   3. C. Sanding Primer-Fillers

4. Preparing Project for Sealer
   4. A. Taping and Masking
   4. B. De-greasing panels

5. Purpose of Sealer
   5. Applying Sealer

6. Painting Your Project
   6. A. Types of Paint
   6. B. Preparing for Paint
   6. C. Types of Paint Guns
   6. D. How to Use your Paint Gun
   6. E. Painting Your Project
   6. F. Gun Cleaning

7. Sanding and Polishing Your New Paint

USING THIS MANUAL

This manual was prepared for use by the do it yourselfer. Organized along key structures, this manual is intended to teach and help form the foundation for which you can build on through your experiences doing body/paint work.

Purpose

This manual explains how you the do it yourselfer, can become confident in your ability to complete the body and paint portion of your project. My goal is to help and support your efforts by providing you an outline from which you can work.

1. Preparing surfaces for bodywork
Applying and Working with Plastics

Bodywork- The bodywork is the single most critical aspect of the paint job and is the foundation of a truly quality paint job. If this isn't perfect, the paint can't be. Paint will not hide flaws, (You can't paint it straight) it will only magnify them. With the bodywork phase, we want the surfaces to be perfectly smooth with all contours exactly as they should be. The mistake I see most commonly made with regards to the use of plastics with beginners is the size of the area they think they need to work with. I have seen guys spread plastic on a repair the size of a quarter, thinking this was acceptable because it was just a small dent. As an exercise to show the effects a small dent has on a panel I want you to take a firm pillow and push your finger into the middle of the pillow, look and see how much of the pillow was effected, if this was a panel, roughly 6-8 inches of metal was drawn in, but the actual dent was only the size of a quarter. Often times in the case where multiple areas need leveling on a panel it is best to coat the whole surface. When working with fiberglass. We want to use it as a means to create a flat surface. When using plastic we want to rough the area with 36 grit from our grinding disk. Apply plastic to only the area that is low. Don't try to block out this first coat, this coat is just a base for the last coat. Just apply a nice coat of filler. We want to just cut this coat, we are not trying to finish this coat. Cut this coat with 36. If you are just working a small area 6-10 inches in diameter 80 grit may be sufficient. Remember we want to use the highest number possible for any given area to be worked. In other words, if you can cut it fast with only 80 then do it. But I would say that this would be limited to an area that is no larger than about 8 inches. If you happen to have a few high spots, see if you can tap them down. (Remember, you can't fill a high spot) NOTE ABOUT HIGH SPOTS, TO THE BEGINNER HIGH SPOTS CAN FOOL YOU INTO THINKING THE AREA AROUND THE HIGH SPOT IS LOW.

If you have a few low spots add a bit more filler to only those spots. Re-cut these last low spots you have just filled with the same grit you have been using (most likely 36). If you now have a surface that one skim coat will fill, then apply it. If you don't, work with it a bit more, but never add a little here or there and think you will finish it without a skim coat. This skim coat is very important, you want it to extend over the complete area, maybe as much as 3 inches past the plastic that you have applied to "rough" it out. This is well past the damage you have been working. Do not use anything that doesn't mix with a hardener. No, "Spot putty" in a tube, only polyester putties or fillers. If it uses a hardener, it cures to a hard film. The "spot putties" stay soft and can become even softer when the solvent from the primer coats it. You now run a block, or long board, over this skim coat with a little bit coarser paper than you plan on finishing with to "cut" the resin that has surfaced in the filler. I usually just use the 36 or 40 or whatever I have been using on the "rough" work. Be careful not to cut much off, you want to just take the very top; don't really sand anything but the top resin. Now finish sanding with your long-board or block or whatever your using with the finer paper, like (80) on a large area or (120) on that small 8" sized area. Block it out to perfection with a nice feather edge to the surrounding metal. I can't stress enough; the trick is to know when just one last skim coat will do the job. And apply it completely over the surface. If you only have one little low spot in the middle, don't just fill it, and skim the entire area. You have to have one last skim coat over the entire thing every time. If you get in the habit of this you will do it over and over on every dent you repair and find that you can do just about any dent with just two applications. As you sand the filler let the board or block you are using run over the surrounding metal. If you only work on the filler you will sand it too low.

You need to keep it as high as the surrounding metal, so use the metal as sort of a straight edge that you run the block or board off of. Don’t worry if you cut through this skim coat here and there. In fact, you will most likely cut through. The point of that last skim coat is that after you add it, you don't add any more filler. That last skim coat is just that, the last filler you add. If you hit a little filler below, or metal, that is normal and ok. The only thing you are looking for at this point is if the panel is flat. The filler skim coat is serving no other purpose than to finish your filler work. The last skim coat should be left to cure a long time. Where you may jump on filler and sand it as soon as it is hard, the skim coat should be allowed to cure for at least an hour or more. If you can of course, the benefits of this procedure is that the plastic will have ample time to dry and cure before sanding. When working with fiberglass surfaces or metal surfaces that have multiple little areas of repair close to each other often it is best to coat the whole surface with plastic as outlined above, and then cut the plastic down with your sand paper.

2. PAINT GUN TECHNIQUES

What a Paint Gun Does

A spray-gun's mission is to atomize refinishing material--it takes paint droplets and divides them into thousands of tiny particles. At the heart of this is the nozzle set, which consists of the air cap, the fluid tip and the paint needle, "When the gun is triggered slightly, it opens the air valve, and the spray-gun acts as a blowgun. As the trigger is retracted further, it unseats the needle in the fluid tip and material begins to flow. On a gravity gun, the quantity of fluid leaving the gun is controlled by the viscosity of the material, the size of the fluid tip and the needle adjustment. Normally, this adjustment should be nearly fully open, thus allowing full trigger control.

Types of Paint Guns

For the discussion here there are two types of hand-held spray-guns: gravity and siphon. The siphon-feed design has been around for a very long time. It is the most popular spray-gun configuration. But the gravity gun has quickly developed a strong following. A growing number of painters have quickly migrated to the advantages of gravity guns. Some of the main advantages of gravity guns are, the air supply isn't used to pull the fluid to the cap, so it requires lower pressure to do the same job as its siphon-fed counterpart. "Most manufacturers produce these variations in both HVLP and conventional versions.

Adjusting Paint Guns

Working hand-in-hand with atomization is proper gun setup. spray-gun set up should be the best combination of the proper nozzle choice, pressure setting, fluid flow and fan width, Most spray-guns allow the user to adjust fluid flow and spray pattern, The fan control is used to control the spray pattern width. As a rule, most painters want to use as wide a fan as possible, but as the fan widens, the amount of material distributed decreases.

"For conventional guns, (Siphon fed) the general rule of thumb is to use the lowest pressure that will provide the best atomization and spray pattern."

Proper Gun Techniques

After setting your equipment properly, it's-as they say-all in the wrist. Even with the spray equipment and the optimum gun settings, a poor technique can ruin a paint job. An improper spraying technique will result in uneven coatings, mottling, dry spots, runs and orange peel.

To improve finish quality, painters must control:

* The distance from the spray-gun to the target;

* spray pattern overlap;

* triggering;

* working speed;

* Spray-gun angle (heeling, toeing and fanning).

Painters' spray techniques are also overwhelmingly dependent on constant visual feedback: They have to watch what they are doing. Be sure to apply the paint evenly-pass the gun perpendicular to the surface at a constant speed. Slowing the rate of the pass will put more material on the panel, and increasing speed will decrease the amount of material applied. Use the speed to regulate your material, and watch the panel very closely to see if you are "wetting" the surface. Each pass of the spray-gun should overlap the previous one by about 50 percent. Watch the material closely to see how it is being laid down.

Never go over the same surface twice. It is always better to let the material flash and then correct the problem on the following coat. Depending on your selection of reducer and hardener, the material will flow to some extent after it has been applied.

Don't be shy about applying the coatings. If you are afraid to "wet" the panel, you will produce dry-looking paint jobs with excess orange peel. Remember that runs in the clear coat are usually repairable after they have cured.

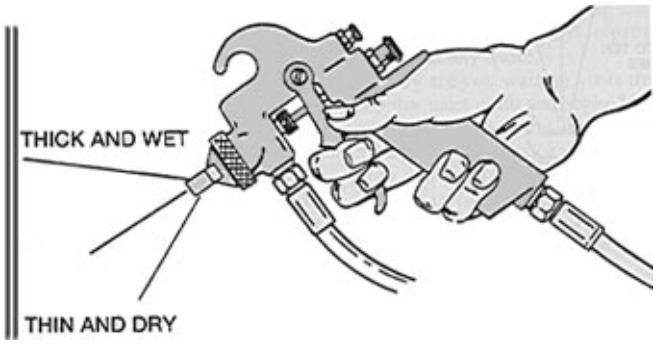
Follow directions to prevent such mishaps as paint application failures and runs are generally the result of insufficient flash times. If the successive coats are landing on material that hasn't had the chance to evaporate its solvent, you'll end up with a run. It is better to error on the side of caution. If you are in doubt regarding flash time whether it's because of low or uneven temperatures on the surface of the project, allow an extra few minutes to let the solvent evaporate.

If debris or insects land in the finish, a steady hand and a pair of tweezers can often save the job. The topcoat will flow out to some extent if the material hasn't cured; leaving you with an imperfection that can be sanded and polished to perfection. In more severe cases, you will have to re-spray the panel. When in doubt, wait for the finish to dry.

Practice painting on a piece of masking paper or card board. Hold the spray gun 8-10 inches away and start spraying while the gun is moving. Stop spraying before you stop moving the gun. Smooth sweeping strokes, keeping an even distance from the surface, and light coats are important.

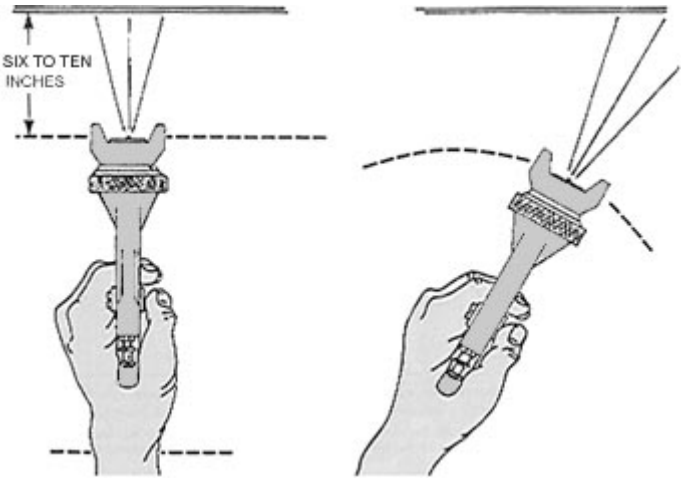
Although these recommendations target beginners, the beginning painter should also remember that practice is the best teacher, and you should begin enhancing you skills by applying primer-surfacer because that coating will usually be sanded. Remember to review the safety precautions noted on the MSDS, and above all, relax and have fun.

If the gun is not held perpendicular to the surface, one side of the spray pattern will be wet with a tendency to run and the other side will be rough and dry.

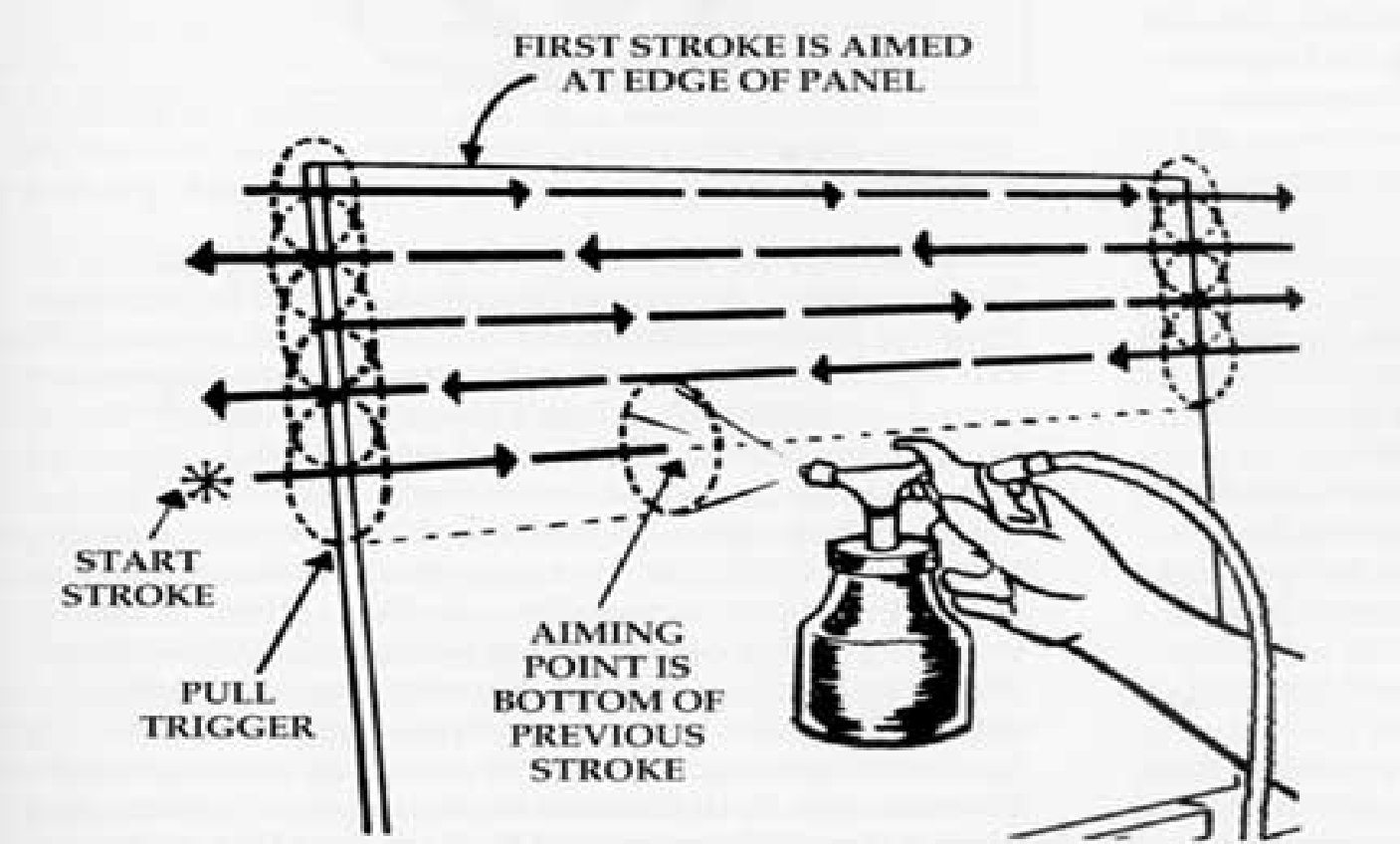


The gun should be properly adjusted each time you spray. A test pattern should always be sprayed on a piece of cardboard before beginning to paint. The normal pattern for a spray gun will be fan shaped. To begin the actual application procedure, hold the spray gun approximately 8 inches from the surface you will be painting. This distance may vary somewhat depending upon whether you are using a HVLP system or a pressure spray gun. The spray gun should be far enough away so the paint does not run or sag when applied and close enough to lay on a wet coat. To prevent the paint from being uneven, it is imperative that the gun be held exactly perpendicular to the surface. If it is tilted the paint will be heavier on one side and lighter on the other. See above. The spray gun should then be moved parallel to the surface only the distance you can comfortably move your entire arm while keeping the movement exactly parallel.

The paint spray gun must be moved parallel to the surface. If the gun is moved in an arc, the spray pattern will be thick in some spots and thin in others.



If the gun is moved in an arc the material will be applied heavier in some places and lighter in others. You should squeeze the trigger of the gun just prior to beginning the paint stroke and release it just before it is completed. You then should move up or down approximately 50% of the fan width and begin the next pass. You must overlap the passes to achieve an even build-up. Each pass of the gun will usually apply the paint more thick in the middle with a tapering off on each end. Remember our definition of a cross-coat, one pass north and south followed by a pass east and west.



Spray Gun Troubleshooting

* Spitting or paint bubbling in the cup is caused by atomized air getting into the fluid passage. This is usually the result of insufficient tightening of the fluid tip or a loose air cap. It can also be caused by damage between the flat surface of the fluid tip and the fluid tip spindle.

* Spray pattern fluttering can be caused by too little paint in the cup, a loose fluid tip or a damaged needle seal.

* A "sickle" or quarter-moon pattern is usually caused by partially or completely clogged air horn passage.

* Too much air pressure may cause a split pattern. Remedy this by increasing the fluid flow and narrowing the fan pattern.

* A teardrop pattern is the result of dried material on the outside of the fluid tip and a bent needle or fluid tip

3. Primer/Fillers

Types of Primer-Fillers

There are two types of Primers, Lacquer, and Urethane. Lacquer primers found in spray cans and purchased from an ABS (Auto Body Supply) stores are rarely used today. Since lacquer primer never cures and is made up of talc, it absorbs the solvent used in your topcoat (paint) causing lose of gloss to the topcoats followed by paint swelling and sand scratches re-appearing.

Urethane Primer contains more solids than lacquer primer and you will use about half the amount to do the same job. Urethane and Epoxy primers are activated and go through a thermosetting stage. Thermosetting (Hardening) in this case the urethane primer is activated and will become setup. It is designed to become a strong, durable, chemical resistant coating. The benefits of this are that the paint will not lose gloss, shrink or swell as easily. The solvents that are used in the Basecoat system are very strong. You must have an activated and cured undercoat in order for it to resist and repel the solvent from penetrating into it. Make sure the primer has dried completely before sanding or scuffing.

Applying Primer-Fillers

Before spraying, always run a clean rag with your degreasing solvent over the surface to remove any grease, then a tack rag to remove any dirt or lint. With primer in the gun, test your spray pattern on a stiff piece of cardboard and adjust as necessary. The gun should be held from between 8" to 10" from the surface being painted. Overlapping 50% on each pass. Apply primer as a wet coat. Experiment here: too close will be very wet and run; too far will be too dry and dusty looking. Apply two or three coats to the areas that have been worked with plastic allowing sufficient flash time between coats. After sanding has been completed to the areas that have been worked with plastic, a complete coat can be applied to all surfaces if desired.

Sanding Primer-Fillers

Begin sanding with 120 or 180 grit dry using the cross hatch method for your sanding technique. After sanding the entire project to 180, wet sanding to 320 or 400 can begin (It is never recommended to “jump” around the project with different grits of sand paper always complete one grit before moving to the next)

4. Preparing Project for Sealer

Taping and Masking

Mask areas not to be painted with good quality masking tape. Protect large areas with masking paper. Don't use newspaper, it tears easily, and does not prevent solvents from penetrating the paper. Tape all joints and folds to prevent paint from collecting later making their way into your paint job.

De-greasing panels

Start prepping the vehicle by wiping it down with a wax, grease, and silicon remover. This cleaner is available at auto body suppliers and it is applied by wiping the vehicle's body with a saturated cloth, and then wiping dry with a different clean cloth.

The basic idea behind these cleaners is simple; they are designed to lift the contaminant up off the surface long enough for you to wipe it away. The surface must stay wet and hold those contaminants up in the cleaner for you to wipe off with a clean/dry rag. This is a mistake most make, they let it dry and the contaminant ends up laying right back on the surface. First of all let's clear up a few things; Lacquer thinner, acetone and enamel or urethane reducers are not surface cleaners. Lacquer thinner evaporates too fast and doesn't give you time to wipe it off wet. It is also much too strong a solvent for most cleaning and can get under the edges of sand through and soften substrates. Enamel and urethane reducers often have resins and other components in them that are designed to be added to the product they were intended to be used with. Use the products recommended by the manufacture of the paint system you are using. (We spray it out of a spray bottle). You spray the panel and then wipe it off. I like to have lots of clean rags when I am doing paint work. Clean rags are one of the most important items you can have in a shop. We prefer the disposable rag. You can get a box of "rags" for a pretty fair price and just throw them away when done. You always have nice clean rags. They are not "just" paper towels, Go to your paint store and get the real thing. There are many different kinds, from cheap wipes similar to your kitchen "paper towels" to lint free towels for final wiping. So let's go over exactly how you use it. As mentioned earlier, you need to keep it wet prior to wiping it off. The best way to do this is keeping your cleaning area down to a manageable size. I usually wipe no more than a half a panel at a time. About six square feet is all you can do without problems of it drying to fast, and even then you have to keep moving pretty fast. You just don't want it to dry, if you do, you have wasted your time. You haven't done what you intended to do. When should you wipe the surface? Well first of all, before you sand. If you don't wipe the surface before you sand you will not sand off the contaminants, you will sand them into the surface. So a good cleaning before sanding is recommended. If the surface is really dirty, clean it a few times changing to clean rags every time. Remember, you want to wipe off the contaminants, so if you use the same rags on the subsequent wipes you can leave the contaminants you wiped off on the first wipe! Wiping before applying primer or paint of course is also recommended. Be sure that any remainder has flashed off (evaporated) before applying your primer or paint. You don't want any of the cleaner to be trapped under your primer or paint! Have a few rags ready to go folded in fourths. Put the rag over the opening on the can of surface cleaner and give the can a "slosh" getting the rag wet, not too wet but wet. You don't need to have it dripping all over the floor, but it should be good and wet. Get in the habit of wiping things down like you are painting it. Use a back and forth pattern with an over lap being sure to wet every square inch. The entire area should be shiny wet, then switch to a clean dry rag and wipe it dry using the same "get every inch" procedure. If you feel it dried before you could get it off, repeat the cleaning. "YOU CAN NEVER GET A CAR TOO CLEAN.

5. Purpose of Sealer

The purpose of Sealer is to provide a barrier coat between the plastic/primer and the paint. Also it creates a single color under our paint, and finally it gives our paint something to grab a hold of. We want to get the closest color to our top coat (paint) (light, or dark) as possible. Sealer can be bought a couple of different ways sand able and non-sand able. The sand able allows us to knock down any nibs that might develop prior to top coating.

Applying Sealer

Apply sealer the same way you apply paint section 8

6. Painting Your Project
Types of Paint

PAINTS You have a choice of the type of topcoat paint along with a large number of brand names. Enamel is a paint that is commonly used. These paints are sprayed over epoxy primer after being thinned to proper consistency using enamel reducers. A light, mist coat is first sprayed on and allowed to dry for a few minutes until it is tacky to the touch (Called a tach Coat). This is then followed by a full coat of enamel. One full coat may be sufficient or another may be sprayed if desired. The use of enamel is not as popular as it was in the past. A second type of topcoat paint is acrylic lacquer. This paint has a low solid content that makes it more difficult to apply. Acrylic lacquer should be thinned using the proper thinner and then a very light tack coat applied. An additional 4-5 cross coats of paint will then have to be applied allowing about 30 minutes drying time between coats. (By the way, a cross-coat is defined as moving the spray gun north and south followed by east and west: one cross coat). Polyurethane paint is probably the most popular choice for a topcoat today. It is very durable and provides a high gloss finish. It is also chemically resistant. These paints have a high solid content and they cure very slowly which means they continue to flow out for a long period of time. This flowing out process forms a very flat surface that gives the surface a high gloss look. Polyurethane enamels are mixed with a catalyst prior to use. They are then reduced to proper viscosity for spraying. A very light tack coat is first applied followed by one or two full coats. One problem inherent in polyurethanes is the thickness of the film applied. If the paint is applied too thick it may tend to crack over a period of time. No matter which paint you choose a few fundamentals apply. First of all, the paint needs to be properly mixed. That means shaking the paint on a paint shaker within one week of application. After shaking the paint it should then be thoroughly stirred just prior to use. Secondly, the surfaces should be wiped down with a paint cleaning solvent using a clean rag. Then a tack rag should be used to remove any dust. Thirdly, the paint should be properly thinned by following the manufacturer's directions. A viscosity cup can be used for the thinning procedure. These are small cups with a hole in the bottom. The cup is filled with paint and then the viscosity is determined by the amount of time, in seconds, required for the paint to flow through the hole until it begins to drip. The next step is to strain the paint through a mesh paint strainer. This should be done prior to placing the paint into the spray cup. If you are using a polyurethane paint, you should strain the paint **prior** to mixing the catalyst. Mixing the catalyst in polyurethane paints should be done in accordance with the directions from the manufacturer. Usually, you should let the catalyst react with the base paint for at least 20 minutes prior to spraying. Once you have mixed the paint you will have approximately 5 hours before the chemical cross linking begins and the mixture begins to thicken. With that in mind, only mix the amount of paint you will need for the job. Other chemicals in addition to reducers that you may encounter are retarders and accelerators. A paint retarder very simply is a solvent that slows the drying time of the paint. It is added in proportion to the directions on the paint can. Retarders are generally used in high temperature or high humidity conditions. Accelerators have the opposite affect. They speed up the drying time. Accelerators may be required to help the drying process in cool temperatures.

Whichever type of paint and brand you choose, you want to use that company's whole system. From primer to topcoat stay with the products recommended by the manufacturer.

Preparing for Paint

Before we begin applying any product to the project we want to first ground the project to the earth. If the project is already on jack stands this will work. If not, we will need to place a chain around something metal on the project and let this chain touch the ground. With all of the sanding that has been taking place, we have built-up a high concentration of static electricity.

If we do nothing to remove this static, our project will act like a great big magnet collecting all the dust that might be in the air. Next we want to clean the entire area around the area we will be painting. Wet the floor to contain any dirt that may have been missed and also trap overspray that will fall to the ground as we are painting. (This process should be followed when sealing the project as well).

Painting Your Project

The first coat of any paint job always goes on light so it will dry fast and provides a sticky surface for the subsequent coats. Overlap each line of paint by about 50%. Evenness of the paint is what you want and it is a function of the proper paint mix and gun spray pattern, perfect perpendicularity of the gun to the surface being painted and maintaining exact consistency of speed at which you draw the gun across the surface you are painting. Paint the edges of the project first. Edges often do not receive an adequate amount of paint. Painting them first will solve this problem. If at all possible, paint on a flat surface. Of course, that is not always possible. Paint will sag or run much more easily on a vertical surface. Spraying in corners and around corners presents a problem. Practice in areas such as this to establish the proper technique. As a general rule, spray the corner first whether it is inside or outside then you can blend the paint in with subsequent strokes. After this “cutting in” is completed we want to begin by applying paint to the tallest surface first. If we are painting a car we want to start on the roof and work our way down the roof pillars to the hood. Our goal in any painting project is to have the overspray landing on the areas we have not yet painted. Paint the vertical surfaces next working from top to bottom, left to right. Repeat this process on the other side as well. We are always trying to paint next to wet paint so we don’t develop dry spots. Proper reducers go along way to help prevent this from happening. Consult with the people at the ABS store when purchasing your products as to which reducers will be best for the conditions you are planning on painting in. Allow ample time between coats to let the reducers flash off; refer to manufacturers recommendation on product sheet. Apply only the amount of paint required to have all paint surfaces colored, any more than this is nothing more than buildup. While the skill and knowledge of the person applying the paint is important, preparation is the key to a good-looking paint job.

Gun Cleaning

Gun cleaning should be done as soon as possible after spraying. The longer you leave the paint materials in the gun the more difficult it will be to clean.

Be sure to wear the appropriate protection while handling solvents. Gloves, safety glasses and breath protection are highly recommended.

Remove the cup, air cap, fluid tip and needle. As with any gun you need to be VERY careful when removing the fluid tip. If the wrench slips off it's grip and nicks the tip the gun will not spray properly even with just a slight nick on the tip. With a Sata that could cost you over $150 so hold the gun (any gun) and the wrench securely when you loosen or tighten the fluid tip.

Don't soak the gun body of any gun in thinner. Use lacquer thinner in a squeeze bottle and a small bowl or cup. Take each part and use the proper size brush to break loose the paint from the walls of the parts then rinse with a shot of the thinner over the cup. You should only need a couple ounces of thinner to do a good job. Wipe the parts with paper towels then lay them on a towel to dry before reassembly. Install the fluid tip on the body before you install the needle, if you install the needle first you could tighten the adjustment too much and then when the fluid tip is tightened you could bend the needle or damage the fluid tip. Lubricating the needle will help the action of the trigger remain smooth. If you use a decent gun cleaning kit you can push a probe through the air cap holes to help keep them clean. Wipe out the cup with paper towels before you use thinner to finish the cleaning it and be sure to clean the pipe between the cup

and the gun with the proper size brush. I usually finish cleaning the cup by dampening a paper towel with clean thinner and wiping it out. Don't leave plastic or rubber cup lids in thinner, it will damage them.

7. Sanding and Polishing Your New Paint

There are two types of pads wool vs. foam buffing pads. Wool pads generally do a good job in the hands of an experienced technician, but some of the newer foam pad designs offer advantages that shouldn't be ignored.

Some of the foam pads currently being manufactured are of a reticulating design, which minimizes or eliminates the splattering of the compound or buffing material, and keeps more of the substance on the pad. Unlike conventional pads, polishes and glazing compounds are applied directly to the surface of the reticulating pad. As the pad rotates during the buffing process, polishes and compounds migrate toward the center of the pad. This results in virtually no splatter, and more of the product is applied to the work surface.

There are many pad types and designs on the market, such as concave, convex and waffle. Each is fashioned to keep the buffing material on the pad and the applied panel, rather than projected into the air. The concave or variable contact type of pad is designed to maintain a very large "polish pocket" on the pad to reduce or eliminate splattering.

Polishing Techniques

To a great extent, the quality of the finished polishing job depends on your ability to read what the polisher is doing. It's as much a matter of technique as having the proper products to do the job. There are, however, several typical imperfections that can be removed with the proper polishing technique. Here are some tips on dealing with paint runs, sags and large imperfections; removing dirt nibs from the finish; and general polishing. Always tape along body lines with your masking tape prior to polishing. Body lines and other protruding areas will be in more contact with the polisher than other areas on the panel and will polish through if taping is not used. Run the masking tape through your fingers a few times to dull the tape prior to taping body lines.

* Be sure the finish is completely dry according to the recommendations in the product data sheet. Premature polishing will damage the finish.

* Do not use very abrasive compounds designed for lacquer finishes. Use polishes designed for urethane finishes.

* Do not use coarse grit sandpapers. Most imperfections can be removed using 1000 grit or finer.

* Machine polisher speed should be set at 1200-1700 rpm.

* Always check paint product data sheets for recommendations on the best pad type for the material being polished.

* When polishing a blended edge, take extra care. Always polish away from the blend edge, never directly into the edge. Whenever possible, the blend edge should be hand-glazed rather than machine polished.

* When hand-glazing the finish, use a soft, clean cloth for application and removal of the glaze.

Removing Imperfections

Prior to sanding or polishing any vehicle, check the appropriate manufacturer's product data sheet (cheat sheet) for recommended dry times of the polishing product. Thoroughly clean the area to be worked to remove any dirt or compound.

To remove minor surface imperfections such as dirt nibs, try the following techniques:

* Sand out the imperfections with 1200 - 1500 grit (or finer) wet sandpaper. Be sure to block sand the surface to remove the imperfections.

* Lightly polish out the sand scratches using an appropriate liquid polish and a machine polisher. Note: Be careful not to put excessive pressure on the machine polisher. It is recommended that the machine polisher (set at 1200-1700 rpm) be used with a foam pad or wool polishing pad or bonnet. If a wool pad or bonnet is used, it should be followed by a foam pad and a non-abrasive glaze.

To remove larger surface imperfections such as paint runs and sags:

* Sand the imperfection with 1000-1200 grit wet sandpaper. Be sure to use a sanding block. Sand the panel until the imperfection is barely visible. Follow with a 1500 grit or finer wet sandpaper to remove the rest of the imperfection.

* Use a machine polisher (set at 1200-1700 rpm) with a clean wool pad or bonnet along with a liquid polish compound solution to remove the sanding scratches.

* This should be followed by a foam polishing pad, used in conjunction with a liquid polish that is designed to remove light sanding scratches and/or machine swirl marks.

* Finish with a hand or machine glaze.

The Final Thoughts

When applying bc/cc let the paint dry and then sand with 600 grit paper before applying clear for a professional appearance.

I want to thank Len from The auto body store for allowing me to re-print from his website:

Autobodystore.com

Good luck